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Atty. Dkt. No. 37607-120

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Williams et al.

Title: ONLINE MORTGAGE
QUALIFICATION AND
APPLICATION SYSTEM AND
PROCESS

Appl. No.: 09/593,106

Filing Date: 06/13/2000

Examiner: Subramanian, N.

Art Unit: 3624

Commissioner for Patents
Washington, D.C. 20231

CERTIFICATE OF EXPRESS MAILING	
I hereby certify that this correspondence is being deposited with the United States Postal Service's "Express Mail Post Office To Addressee" service under 37 C.F.R. § 1.10 on the date indicated below and is addressed to: Commissioner for Patents, Washington, D.C. 20231.	
EL 716380739 US	December 23, 2002
(Express Mail Label Number)	(Date of Deposit)
Kristine Lancelle	
(Printed Name)	
Kristine Lancelle	
(Signature)	

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JAN 15 2004

GROUP 3600

REPLY & AMENDMENT

This communication is responsive to the Office Action dated August 30, 2002 concerning the above-referenced patent application.

Please amend the application as follows:

In the Summary of the Invention:

Please add the following paragraph on page 6, after the third paragraph ending with "...the automated implementation of various aspects of the inventive process." Support for the paragraph may be found in at least the Abstract as originally filed. No new matter has been added:

The system allows a potential borrower to ascertain the likelihood that the borrower will qualify for a mortgage loan online in real time, and to apply for and obtain a loan that is priced to reflect the individual borrower's specific financial and other relevant characteristics. System software evaluates borrower information submitted to the loan

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originator electronically in real time to make the determination, before the actual loan application is submitted and without the need to obtain a credit report or a collateral appraisal, how likely it is that the potential borrower's loan application will be approved. If the borrower chooses to apply for a loan, the system underwrites the loan and calculates interest rates and points based on the specific financial profile and other relevant characteristics of the particular borrower, and also on the credit risk associated with the borrower. During underwriting, the system makes automatic assessments of underlying collateral based, in part, on historical data stored in a database concerning the collateral, and recommends either an appraisal with an interior and exterior inspection, an appraisal with an exterior-only inspection or no appraisal. The risk associated with not performing an appraisal is factored into the loan pricing as a per loan adjustment to the interest rate. Also, closing costs may be aggregated with the loan principal. Additionally, the system and process calculate the price that the loan originator may expect to receive in the secondary loan market when it sells an individual loan to the secondary mortgage market purchaser.

In the Abstract:

Please delete the Abstract and replace with the following:

Systems and methods for online mortgage qualification and application are disclosed. A method for qualifying and applying for a loan online includes obtaining financial information concerning a potential borrower, determining the likelihood that the potential borrower will be approved for a loan, evaluating a loan application for the loan, the loan application including the financial information and specifying a loan principal, underwriting the loan to determine an approval status of the borrower for the loan and for other loans based on preselected underwriting guidelines, and calculating a customized interest rate based on the financial information for presentation to the borrower for the loan and for each of the loans for which the borrower is approved.

In the Claims:

Please cancel claims 3, 27, ³⁰20 and 42-52 without prejudice.

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the reasons which follow.

Claims 1-52 stand rejected. On entry of this Reply and Amendment, claims 3, 27, 30, and 42-52 will be cancelled without prejudice to further prosecution on the merits. Accordingly, claims 1, 2, 4-26, 28, 29 and 31-41 will be pending in this Application.

Objections

In Section 3 of the Office Action, the Examiner objected to the abstract as exceeding 150 words in length. The objection to the Abstract have been noted, and appropriate correction has been made accordingly. Support for the Abstract may be found in at least claim 1 as originally filed. No new matter has been added.

Restriction Requirement

In Section 4 of the Office Action, the Examiner required Applicant to make an election to either claims 1, 2, 4-26, 28, 29 and 31-41 or claims 3, 27, 30, and 42-52. Applicant elects to prosecute claims 1, 2, 4-26, 28, 29 and 31-41. Claims 3, 27, 30, and 42-52 have been cancelled without prejudice accordingly.

Claim Rejections

In Section 6 of the Office Action, the Examiner rejected claims 1, 4-18, 21-26, 28, and 31-41 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application No. 2002/0023051 (Kunzle et al.). On page 7 of the Office Action, the Examiner rejected claims 2 and 29 under 35 U.S.C. § 103(a) as being unpatentable over Kunzle et al.

Applicant has submitted herewith a declaration under 37 C.F.R. 1.131 to remove U.S. Patent Application No. 2002/0023051 (Kunzle et al.) as prior art. The United States filing date of Kunzle et al. is March 31, 2000. The declaration and accompanying documents demonstrate that the subject matter of claims 1, 2, 4-18, 21-26, 28, 29 and

31-41 was in the possession of the inventors before March 31, 2000. More specifically, the declaration and accompanying documents show that the subject matter of claims 1, 2, 4-18, 21-26, 28, 29 and 31-41 was fully conceived and actually reduced to practice prior to March 31, 2000.

1. The subject matter of Independent Claim 1 is disclosed in Exhibits A and B

Independent Claim 1 recites "obtaining financial information concerning a potential borrower."

Exhibit A, page 3 titled "Perform Gatekeeping Function" shows the following steps: step 2.1 "inquire for what kind of loan consumer is looking for: purchase; refi; cash-out refi; pre-approval with property; pre-approval w/o property;" step 2.3 "get borrower name and register to site;" and step 2.6 "collect minimum data set for gatekeeping function."

Independent Claim 1 recites "determining the likelihood that said potential borrower will be approved for a loan."

Exhibit A, page 4 titled "Pull and Reconcile Credit Report" shows step 3.2 "Do Probable Qual."

Exhibit B shows and describes various processes and steps associated with a "Probable Qualification Web Tool."

Independent Claim 1 recites "evaluating a loan application for said loan, said loan application including said financial information and specifying a loan principal."

Exhibit A, page 3 titled "Perform Gatekeeping Function" shows step 2.8 "Perform gatekeeping function: identify out of scope products; "out of the ballpark" exceptions; Fast Refi eligibility rules.

Independent Claim 1 recites "underwriting said loan to determine an approval status of said borrower for said loan and for other loans based on preselected underwriting guidelines."

Exhibit A, page 5 titled "Underwrite and Match Consumer to Product/Price" shows step 4.2 "Run Underwriting Engine: Credit Assessment; Collateral Assessment (determine appraisal needs)."

Independent Claim 1 recites "calculating a customized interest rate based on said financial information for presentation to said borrower for said loan and for each of said other loans for which said borrower is approved."

Exhibit A, page 5 titled "Underwrite and Match Consumer to Product/Price" shows step 4.4 "Run Bundled Risk Based Pricing Engine/Closing Cost Engine."

2. The subject matter of Independent Claim 11 is disclosed in Exhibit B

Independent Claim 11 recites "obtaining financial information concerning a potential borrower and a loan."

Exhibit B, pages 7-10 shows and describes various "Data Inputs" relating to the potential borrower and the loan associated with a "Probable Qualification Web Tool" such as Loan Purpose, Property Value, Loan Amount, Number of Borrowers, Annual Income of all Borrowers, etc.

Independent Claim 11 recites "determining if said potential borrower and said loan meet preselected underwriting guidelines of a secondary mortgage market purchaser based on said financial information."

Exhibit B, pages 13-14 shows and describes "Stage 1-Eligibility Screen." "The eligibility screen allows the "Probable Qual" user to receive feedback regarding the eligibility of the loan they are examining prior to the completion of the data input." Exhibit B, page 14.

Independent Claim 11 recites "if it is determined that at least one of said borrower and said loan does not meet said preselected guidelines, revising said financial information

concerning said potential borrower and said loan and determining if said guidelines are met based on said revised financial information"

Exhibit B, pages 13-14 show and describe "Stage 1-Eligibility Screen." "If the user inputs a combination of factors that is typically ineligible they are notified immediately of the ineligibility." Exhibit B, page 14.

Independent Claim 11 recites "calculating a proxy credit score based on said financial information if it is determined that said borrower and said loan meet said preselected guidelines."

Exhibit B, pages 13, and 17 show and describe "Stage 2 – Calculate Proxy Credit Score." "Through a series of credit-related question, a proxy credit score is calculated separately for the following two groups." Exhibit B, page 17.

Independent Claim 11 recites "obtaining statistical weights from a look up table."

Exhibit B, pages 13, and 18-20 show and describe "Stage 2 – Calculate Proxy Credit Score." Shown on pages 18-20 are Tables 3a and 3b for use in construction a proxy credit score for web user with and without credit delinquencies.

Independent Claim 11 recites "assigning said statistical weights to preselected characteristics of said loan."

Exhibit B, pages 13, and 18-20 show and describe "Stage 2 – Calculate Proxy Credit Score." Shown on pages 21-23 are "coefficient weights for the non-credit factors and calculating the overall approval probability." Non-credit factors, as listed, include loan-to-value ratio, total expense ratio, number of units, etc.

Independent Claim 11 recites "calculating a probability that said potential borrower will be approved for said loan based on said proxy credit score and said statistical weights."

Exhibit B, pages 13, and 24-25 show and describe "Stage 3 – Use Proxy Credit Score and other loan characteristics to calculate approv prob." Shown on pages 24-25 are "Probable Qualification Model Layout: To be used in the calculation of An Overall Approval Probability."

Independent Claim 11 recites "presenting to said potential borrower a percentage probability of approval for said loan."

Exhibit B, pages 13, and 25-27 show and describe "Stage 4 – Output Messaging." Shown on pages 25-27 are outputs used for "messaging back to consumer: qualitative and quantitative output."

3. The subject matter of Independent Claim 17 is disclosed in Exhibits A and D

Independent Claim 17 recites "retrieving an interest rate that is calculated to be specific to a potential borrower and a loan."

Exhibit A, page 5 titled "Underwrite and Match Consumer to Product/Price" shows step 4.4 "Run Bundled Risk Based Pricing Engine/Closing Cost Engine."

Exhibit D, page 5, section 1.1-2) recites "Calculate a rate for a specific borrower/product combination based on an E-Commerce Conforming Credit Model approval decision."

Independent Claim 17 recites "retrieving a yield/point trade-off schedule for said loan."

Exhibit D, page 14, section 4 recites "In response to a pricing request, the Pricing Engine will provide the Lender the following information: ...9. A schedule of Yield/Point Trade-offs for the priced product."

Independent Claim 17 recites "determining if said potential borrower is approved for said loan at said specific interest rate."

Exhibit A, page 5 titled "Underwrite and Match Consumer to Product/Price" shows the step 4.7 "Approved" inquiry.

Independent Claim 17 recites "if it is determined that said potential borrower is approved for said loan at said specific interest rate, (i) determining minimum verification documentation, (ii) determining selected loan underwriting parameters, (iii) determining pricing parameters, and (iv) tailoring said yield/point trade-off schedule for said loan based on said pricing parameters."

Exhibit A, page 5 titled "Underwrite and Match Consumer to Product/Price" shows the step 4.12 "Get additional information as needed (specific to validations)" after a potential borrower is approved for a loan at a specific interest rate.

Exhibit D, page 25, section 12 titled "Price Approved Products for Borrower" shows steps 12.3 "Obtain the Customer Price Component" and 12.4 "Tailor Gross Note Rate/Points Schedule."

Independent Claim 17 recites "if it is determined that said potential borrower is not approved for said loan at said specific interest rate, (i) determining a maximum loan amount for approval, (ii) determining a monthly debt reduction required for approval, and (iii) determining if said potential borrower meets preselected income requirements for alternative loans."

Exhibit A, page 5 titled "Underwrite and Match Consumer to Product/Price" shows step 4.10 "Alter Scenario?" and step 4.6 "Adjust data."

Independent Claim 17 recites "outputting underwriting findings and if the potential borrower is approved, outputting interest rate quotes."

Exhibit A, page 5 titled "Underwrite and Match Consumer to Product/Price" shows step 4.13 "Pick product and select lock option (float, float down, rate lock)."

Independent Claim 17 recites "repeating the foregoing steps for other loans."

The process shown above was configured to be repeated for any number of loans.

4. The subject matter of Independent Claim 23 is disclosed in Exhibit D

Independent Claim 23 recites "inputting borrower and loan information."

Exhibit D, page 14, section 4 recites "[i]n response to a pricing request, the Pricing Engine will provide the Lender the following information: The borrower for which the price quote has been generated."

Independent Claim 23 recites "retrieving underwriting characteristics."

Exhibit D, page 16, section 5.1 recites "Each Business Source Enticement Rate Assumption Profile will contain the following data elements: Business Source Enticement Profile Identifier; Amortization type; Amortization term; Loan amount; LTV... Number of months cash reserve; Purpose of Loan; Back-end ratio; Self-employed...."

Independent Claim 23 recites "retrieving a required yield from a current yield/point trade—off schedule."

Exhibit D, page 8, section 3.1 recites "Portfolio Management will provide the Pricing Engine with a par required yield and a Yield/Point Trade-off Schedule for each in-scope product."

Independent Claim 23 recites "calculating adjustments to said required yield associated with said loan based on at least one of (i) credit risk posed by said borrower, (ii) collateral risk associated with not requiring a collateral appraisal, (iii) loan-to-value ratio, and (iv) loan purpose."

Exhibit D, page 8, section 3 titled "Pricing Components" recites "The Fannie Mae Pricing Engine will calculate a final retail gross note rate that is to be presented to the borrower. The components of a gross note rate are as follows: Portfolio Required Yield and Customer Price Component. The Customer Component consists of: Risk Based

Guaranty Fee...Collateral Risk Price Adjustment" Exhibit D, page 8, section 3 further recites the criteria for "risk based guarantee fee are as follows: LTV...Loan Purpose."

5. The subject matter of Independent Claim 26 is disclosed in Exhibit D

Independent Claim 26 recites "inputting financial information representative of a hypothetical potential borrower based on preselected specifications of said loan originator"

Exhibit D, page 21, section 9.1 recites "The Pricing Engine may provide the Lender with up to three separate enticement rates for each Business Source. The rates will be based on a low-risk, an average risk, and a high-risk profile."

Independent Claim 26 recites "inputting loan information."

Exhibit D, page 16, section 5.1 recites "Each Business Source Enticement Rate Assumption Profile will contain the following data elements: Business Source Enticement Profile Identifier; Amortization type; Amortization term; Loan amount; LTV...."

Independent Claim 26 recites "retrieving underwriting characteristics."

Exhibit D, page 16, section 5.1 recites "Each Business Source Enticement Rate Assumption Profile will contain the following data elements: Business Source Enticement Profile Identifier; Amortization type; Amortization term; Loan amount; LTV... Number of months cash reserve; Purpose of Loan; Back-end ratio; Self-employed...."

Independent Claim 26 recites "retrieving a required yield from a current yield/point trade-off schedule."

Exhibit D, page 21, section 9.2 recites "The Pricing Engine will provide the Lender the following information: ... Yield/Point Trade-off Schedule."

Independent Claim 26 recites "calculating adjustments to said required yield associated with said loan based on at least one of (i) credit risk posed by said

hypothetical borrower, (ii) collateral risk associated with not requiring a collateral appraisal, (iii) loan-to-value ratio, and (iv) loan purpose."

Exhibit D, page 8, section 3 titled "Pricing Components" recites "The Fannie Mae Pricing Engine will calculate a final retail gross note rate that is to be presented to the borrower. The components of a gross note rate are as follows: Portfolio Required Yield and Customer Price Component. The Customer Component consists of: Risk Based Guaranty Fee...Collateral Risk Price Adjustment" Exhibit D, page 8, section 3 further recites the criteria for "risk based guarantee fee are as follows: LTV...Loan Purpose."

6. The subject matter of Independent Claim 28 is disclosed in Exhibits A and B

Independent Claim 28 recites "input means for obtaining financial information concerning a potential borrower."

Exhibit A, page 3 titled "Perform Gatekeeping Function" shows the following steps: step 2.1 "inquire for what kind of loan consumer is looking for: purchase; refi; cash-out refi; pre-approval with property; pre-approval w/o property;" step 2.3 "get borrower name and register to site;" and step 2.6 "collect minimum data set for gatekeeping function."

Independent Claim 28 recites "means for determining the likelihood that said potential borrower will be approved for a loan."

Exhibit A, page 4 titled "Pull and Reconcile Credit Report" shows step 3.2 "Do Probable Qual."

Exhibit B shows and describes various processes and steps associated with a "Probable Qualification Web Tool."

Independent Claim 28 recites "means for evaluating a loan application for said loan, said loan application including said financial information and specifying a loan principal."

Exhibit A, page 3 titled "Perform Gatekeeping Function" shows step 2.8 "Perform gatekeeping function: identify out of scope products; "out of the ballpark" exceptions; Fast Refi eligibility rules.

Independent Claim 28 recites "means for underwriting said loan to determine an approval status of said borrower for said loan and for other loans based on preselected underwriting guidelines."

Exhibit A, page 5 titled "Underwrite and Match Consumer to Product/Price" shows step 4.2 "Run Underwriting Engine: Credit Assessment; Collateral Assessment (determine appraisal needs)."

Independent Claim 28 recites "means for calculating a customized interest rate quote based on said financial information for presentation to said borrower for said loan and for each of said other loans for which said borrower is approved."

Exhibit A, page 5 titled "Underwrite and Match Consumer to Product/Price" shows step 4.4 "Run Bundled Risk Based Pricing Engine/Closing Cost Engine."

7. The subject matter of Independent Claim 36 is disclosed in Exhibit B

Independent Claim 36 recites "input means for obtaining financial information concerning a potential borrower and a loan."

Exhibit B, pages 7-10 shows and describes various "Data Inputs" relating to the potential borrower and the loan associated with a "Probable Qualification Web Tool" such as Loan Purpose, Property Value, Loan Amount, Number of Borrowers, Annual Income of all Borrowers, etc.

Independent Claim 36 recites "means for determining if said potential borrower and said loan meet preselected underwriting guidelines of a secondary mortgage market purchaser based on said financial information."

Exhibit B, pages 13-14 shows and describes "Stage 1-Eligibility Screen." "The eligibility screen allows the "Probable Qual" user to receive feedback regarding the eligibility of the loan they are examining prior to the completion of the data input." Exhibit B, page 14.

Independent Claim 36 recites "means for prompting said potential borrower to revise said financial information if it is determined that at least one of said borrower and said loan does not meet said preselected guidelines."

Exhibit B, pages 13-14 show and describe "Stage 1-Eligibility Screen." "If the user inputs a combination of factors that is typically ineligible they are notified immediately of the ineligibility." Exhibit B, page 14.

Independent Claim 36 recites "means for calculating a proxy credit score based on said financial information if it is determined that said borrower and said loan meet said preselected guidelines."

Exhibit B, pages 13, and 17 show and describe "Stage 2 – Calculate Proxy Credit Score." "Through a series of credit-related question, a proxy credit score is calculated separately for the following two groups." Exhibit B, page 17.

Independent Claim 36 recites "means for obtaining statistical weights from a look up table."

Exhibit B, pages 13, and 18-20 show and describe "Stage 2 – Calculate Proxy Credit Score." Shown on pages 18-20 are Tables 3a and 3b for use in construction a proxy credit score for web user with and without credit delinquencies.

Independent Claim 36 recites "means for assigning said statistical weights to preselected characteristics of said loan."

Exhibit B, pages 13, and 18-20 show and describe "Stage 2 – Calculate Proxy Credit Score." Shown on pages 21-23 are "coefficient weights for the non-credit factors and calculating the overall approval probability." Non-credit factors, as listed, include loan-to-value ratio, total expense ratio, number of units, etc.

Independent Claim 36 recites "means for calculating a probability that said potential borrower will be approved for said loan based on said proxy credit score and said statistical weights."

Exhibit B, pages 13, and 24-25 show and describe "Stage 3 – Use Proxy Credit Score and other loan characteristics to calculate approv. prob." Shown on pages 24-25 are "Probable Qualification Model Layout: To be used in the calculation of An Overall Approval Probability."

Independent Claim 36 recites "means for communicating to said potential borrower a percentage probability of approval for said loan."

Exhibit B, pages 13, and 25-27 show and describe "Stage 4 – Output Messaging." Shown on pages 25-27 are outputs used for "messaging back to consumer: qualitative and quantitative output."

* * * * *

It is respectfully submitted that claims 1, 2, 4-18, 21-26, 28, 29 and 31-41 are allowable over Kunzle et al. because Kunzle et al. does not qualify as prior art under 35 U.S.C. § 102(e) based upon the attached declaration under 37 C.F.R. 1.131 and supporting documents submitted herewith.

Accordingly, reconsideration and withdrawal of the rejection of claims 1, 2, 4-18, 21-26, 28, 29 and 31-41 is respectfully requested.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

Date December 23, 2002

By Kenneth G. Lemke

FOLEY & LARDNER
777 East Wisconsin Avenue
Milwaukee, Wisconsin 53202-5367
Telephone: (414) 297-5691
Facsimile: (414) 297-4900

Kenneth G. Lemke
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Williams et al.
Title: ONLINE MORTGAGE
QUALIFICATION AND
APPLICATION SYSTEM AND
PROCESS
Appl. No.: 09/593,106
Filing Date: 06/13/2000
Examiner: Subramanian, N.
Art Unit: 3624

DECLARATION UNDER 37 C.F.R. § 1.131

Commissioner for Patents
Washington, D.C. 20231

Sir:

We, Michael J. Williams, Kimberly J. Hirsch, Peter G. Kopperman, Martin T. Schulz, David N. Voth, Michael W. Koch, Richard N. Plotnick, and Peter A. Simon state and declare that:

1. We are the co-inventors of Claims 1-52 of U.S. Patent Application No. 09/593,106.
2. Prior to March 31, 2000, we conceived and reduced to practice in the United States the invention described and claimed in the above-referenced application (as evidenced by the attached Exhibits A to C).
3. Exhibit A, titled "Project Tango – High Level Process Flow Phase 1," is a redacted copy of pages from a document outlining the architecture specifications and functionality of Project Tango. Exhibit A describes a system used in the "Online Mortgage Qualification and Application System and Process" described and claimed in U.S. Patent Application No. 09/593,106.
4. Exhibit B, titled "Landscape Probable Qualification Web Tool Requirements," is a redacted copy of pages from a document outlining and describing the specifications and functionality of a probability calculation tool used in Project Landscape. Exhibit B describes a

probability calculation tool used in the "Online Mortgage Qualification and Application System and Process" described and claimed in U.S. Patent Application No. 09/593,106.

5. Exhibit C, titled "Shrinkwrap Pricing," is a redacted copy of pages from a document outlining and describing the specifications and functionality of a pricing tool used in Project Landscape. Exhibit C describes a pricing tool used in the "Online Mortgage Qualification and Application System and Process" described and claimed in U.S. Patent Application No. 09/593,106.

6. Each of the dates deleted from Exhibits A to C is prior to March 31, 2000. Exhibits A to C were each in existence prior to March 31, 2000.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

Date 12/12/02

By Michael J. Williams
Michael J. Williams

Date _____

By _____
Kimberly J. Hirsch

Date 12/12/02

By Peter G. Kopperman
Peter G. Kopperman

Date _____

By _____
Martin T. Schulz

Date 12/12/2002

By David N. Voth
David N. Voth

Date 12/11/2002

By Michael W. Koch
Michael W. Koch

Date _____

By _____

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5. Exhibit C, titled "Shrinkwrap Pricing," is a redacted copy of pages from a document outlining and describing the specifications and functionality of a pricing tool used in Project Landscape. Exhibit C describes a pricing tool used in the "Online Mortgage Qualification and Application System and Process" described and claimed in U.S. Patent Application No. 09/593,106.

6. Each of the dates deleted from Exhibits A to C is prior to March 31, 2000. Exhibits A to C were each in existence prior to March 31, 2000.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

Date _____

By _____
Michael J. Williams

Date _____

By Kimberly J. Thurow (formerly known as Kimberly J. Hirsch)
Kimberly J. Hirsch

Date _____

By _____
Peter G. Kopperman

Date _____

By _____
Martin T. Schulz

Date _____

By _____
David N. Voth

Date _____

By _____
Michael W. Koch

Date _____

By _____

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Date _____

By _____
Michael J. Williams

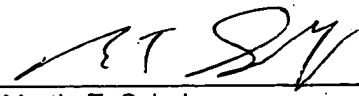
Date _____

By _____
Kimberly J. Hirsch

Date _____

By _____
Peter G. Kopperman

Date 12/9/02

By 
Martin T. Schulz

Date _____

By _____
David N. Voth

Date _____

By _____
Michael W. Koch

Date _____

By _____

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6. Each of the dates deleted from Exhibits A to C is prior to March 31, 2000. Exhibits A to C were each in existence prior to March 31, 2000.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing therefrom.

Date _____

By _____
Michael J. Williams

Date _____

By _____
Kimberly J. Hirsch

Date _____

By _____
Peter G. Kopperman

Date _____

By _____
Martin T. Schulz

Date _____

By _____
David N. Voth

Date _____

By _____
Michael W. Koch

Date 12/12/2002

By Richard N. Plotnick
RICHARD N. PLOTNICK

Richard N. Plotnick

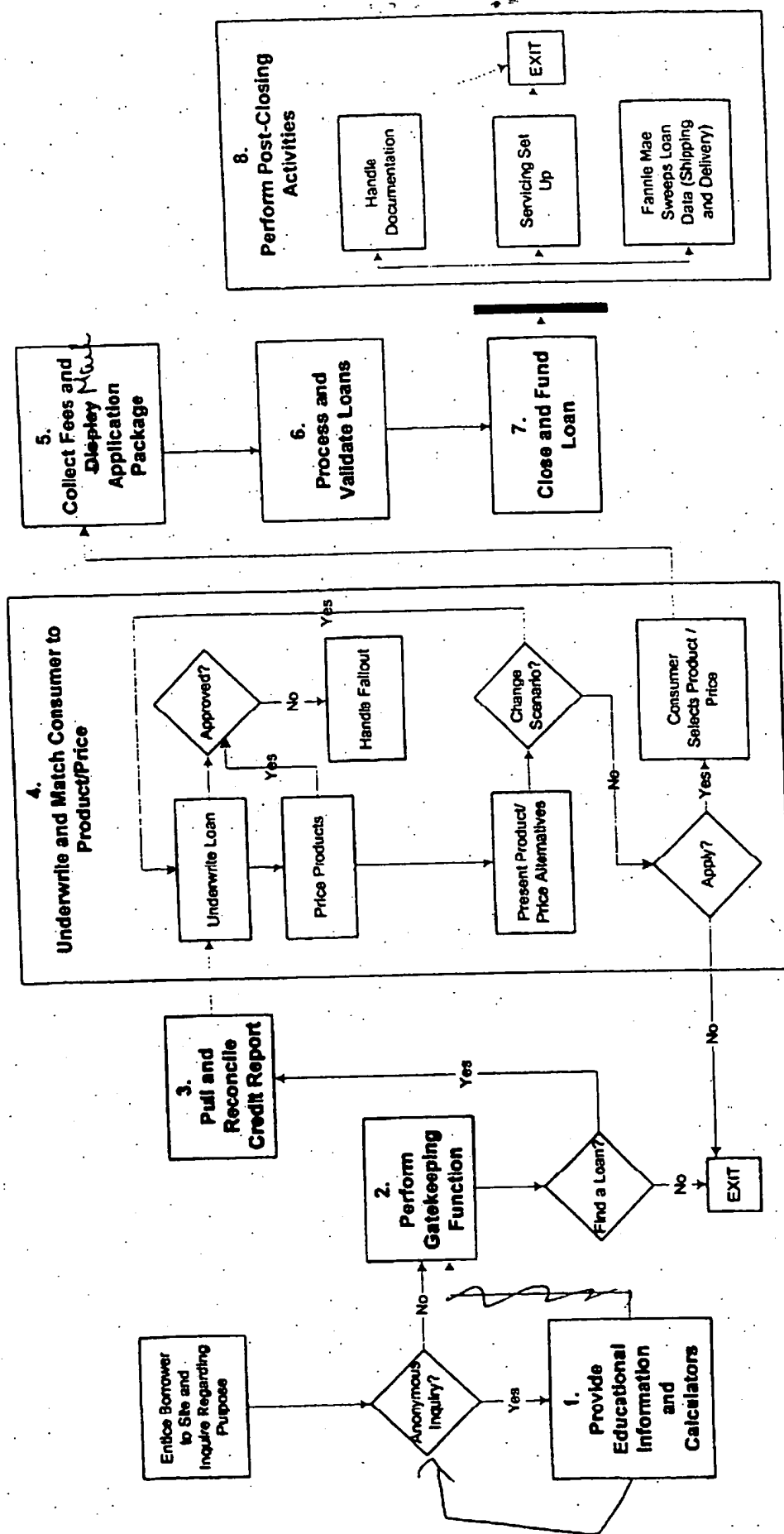
Date 12/09/12

By Peter A. Simon
Peter A. Simon

EXHIBIT A

Project Tango - High Level Process Flow

Phase 1



Activities Shared Throughout Process

- 9. Reunderwrite when Key Data Changes
- 10. Lock Rate

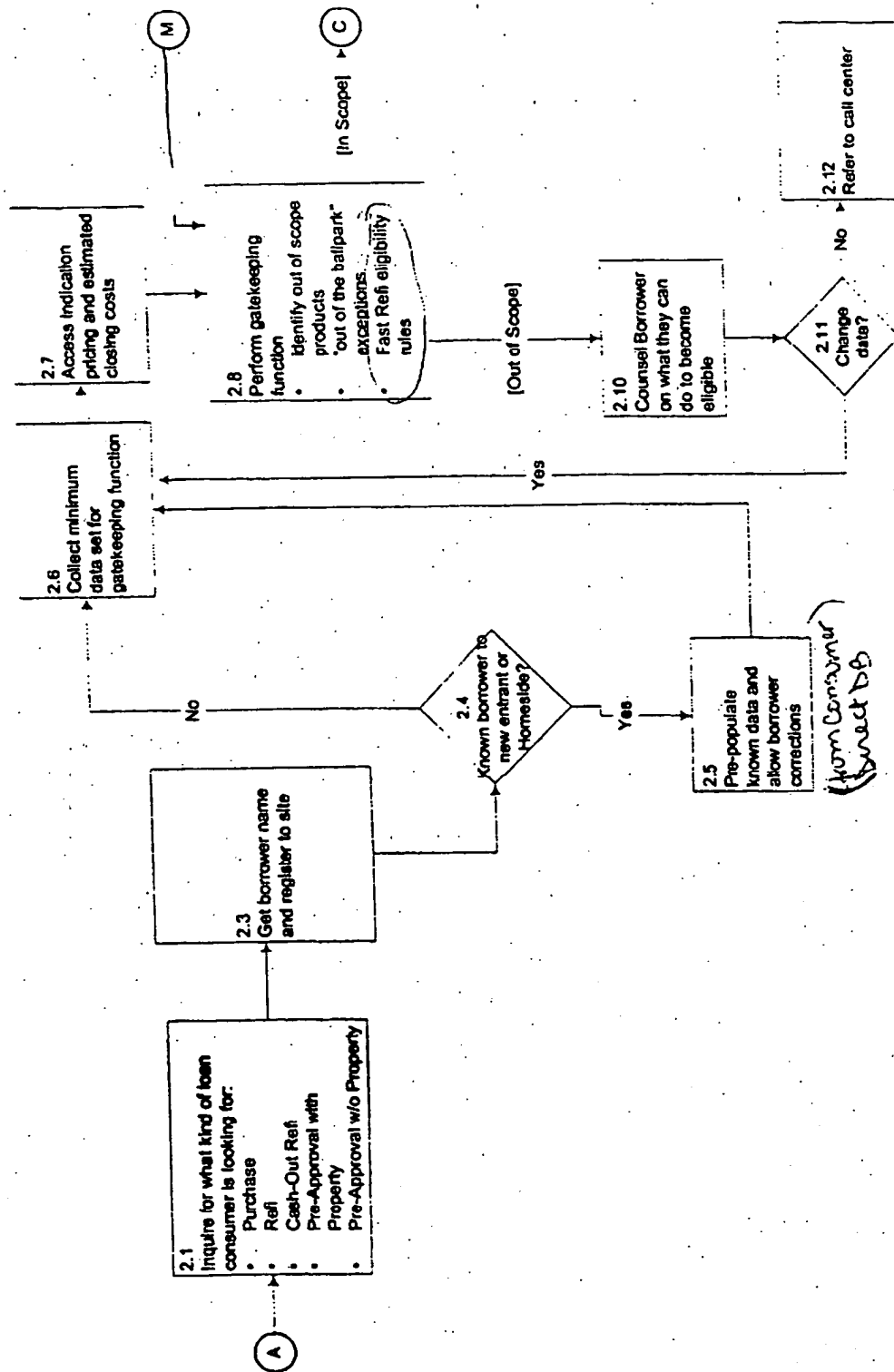
Process Support Functions

- Track Site Activity
- Establish daily products and pricing
- Provide status to borrower and new entrants
- Provide support to borrower and new entrants
- Track billing and compensation information to new entrants
- Provide MIS reporting to new entrants

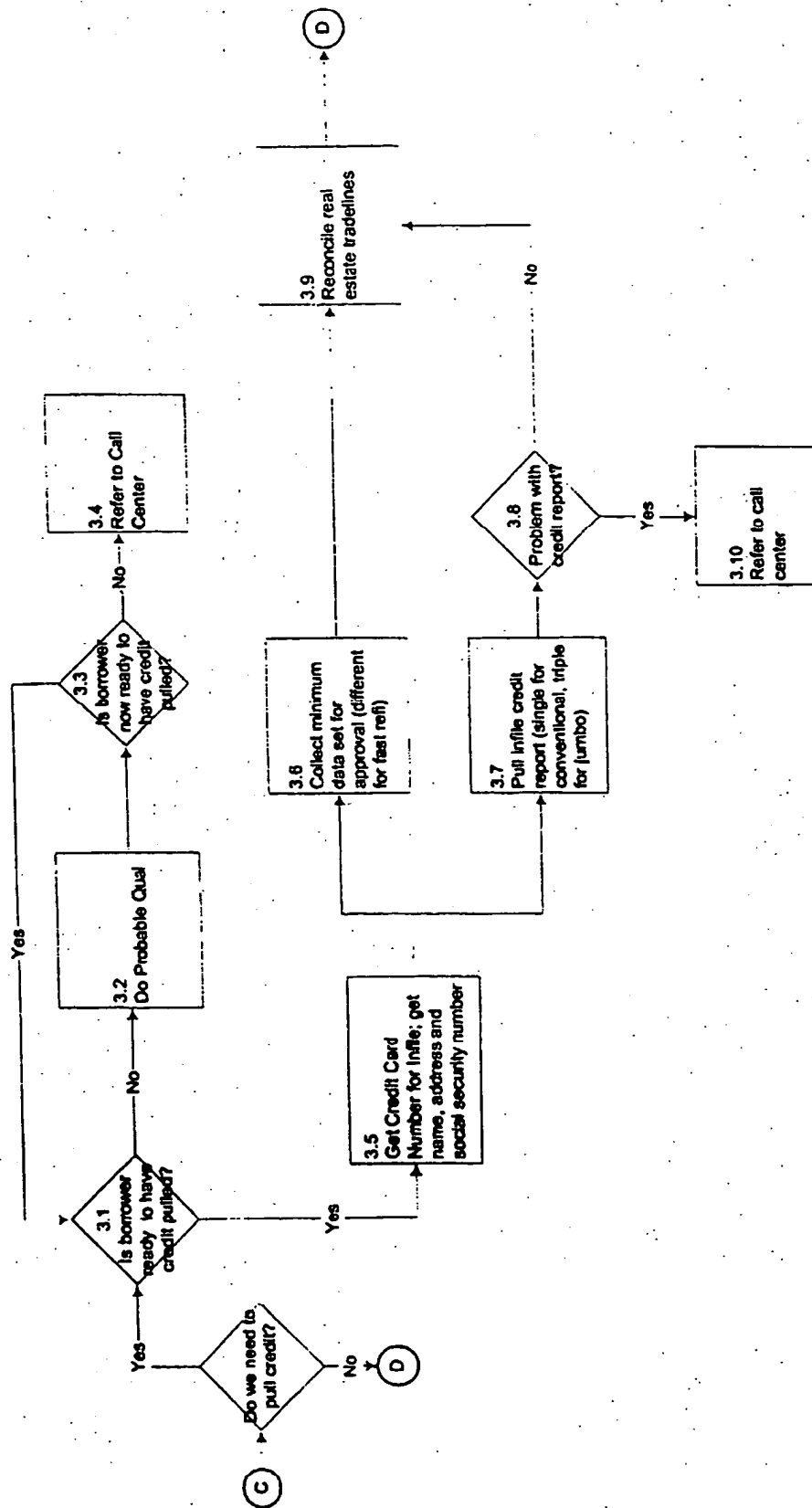
Web site

On line help

2. Perform Gatekeeping Function



3. Pull and Reconcile Credit Report



4. Underwrite and Launch Consumer to Product/Price (can go through this process without property address)

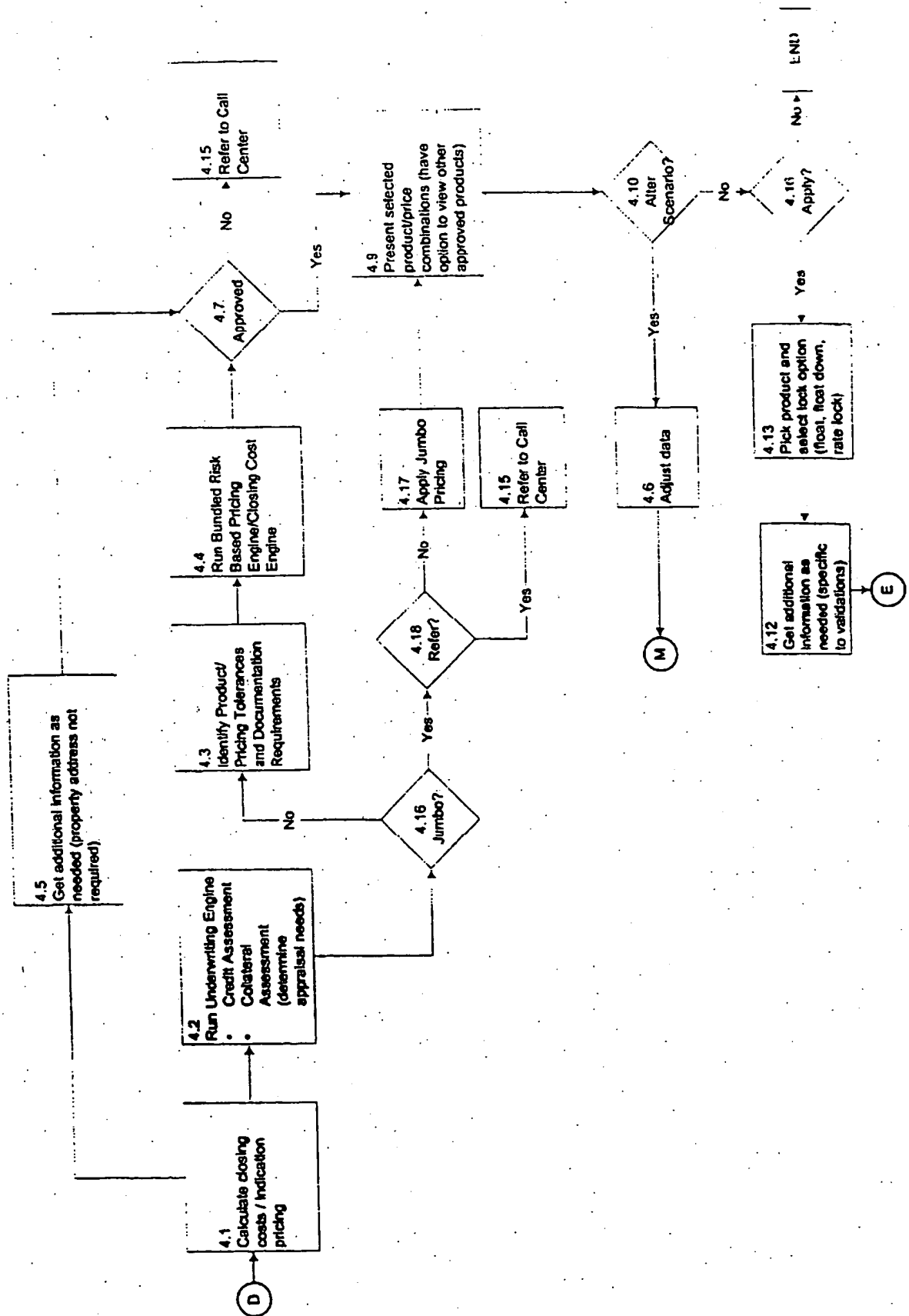


EXHIBIT B

PROBABLE QUALIFICATION WEB TOOL

1. DESCRIPTION AND PURPOSE

The primary purpose of the Probable Qualification web tool is to provide the online mortgage shopper an exploratory, educational tool to assist in answering the question: "Is My Mortgage Application Likely to be Approved?"

the Probable Qualification tool is designed to give the consumer a riskless and costless "preview" of the outcome of the full application process in terms of their likelihood of being approved for a mortgage loan. The output from the Probable Qualification tool will be both quantitative and qualitative in nature. It will be quantitative in terms of a numerical rating of the likelihood of mortgage loan approval. Qualitative, textual suggestions as to how to increase the probability of loan approval will be offered when the loan is deemed not likely to be approved based on the borrower's inputs into the Probable Qualification tool.

3. DATA INPUTS

The online Probable Qualification web tool contains a series of 18 questions . There are two types of questions that comprise the Probable Qualification Web Tool: credit related questions and non-credit related questions. There are six credit-related questions that are used to derive a "proxy" credit score , which is necessary because a credit report and therefore a FICO score will not be available for the consumer during the consumer's Probable Qualification session

There are also several questions the answers to which are used to derive other factors. For example, annual income, monthly debts, purchase price of home, and down payment amount are used to derive total expense ratios as well as LTV which are not collected directly through the web tool, but are calculated values. These derived values are described in more detail in Section 4.2.

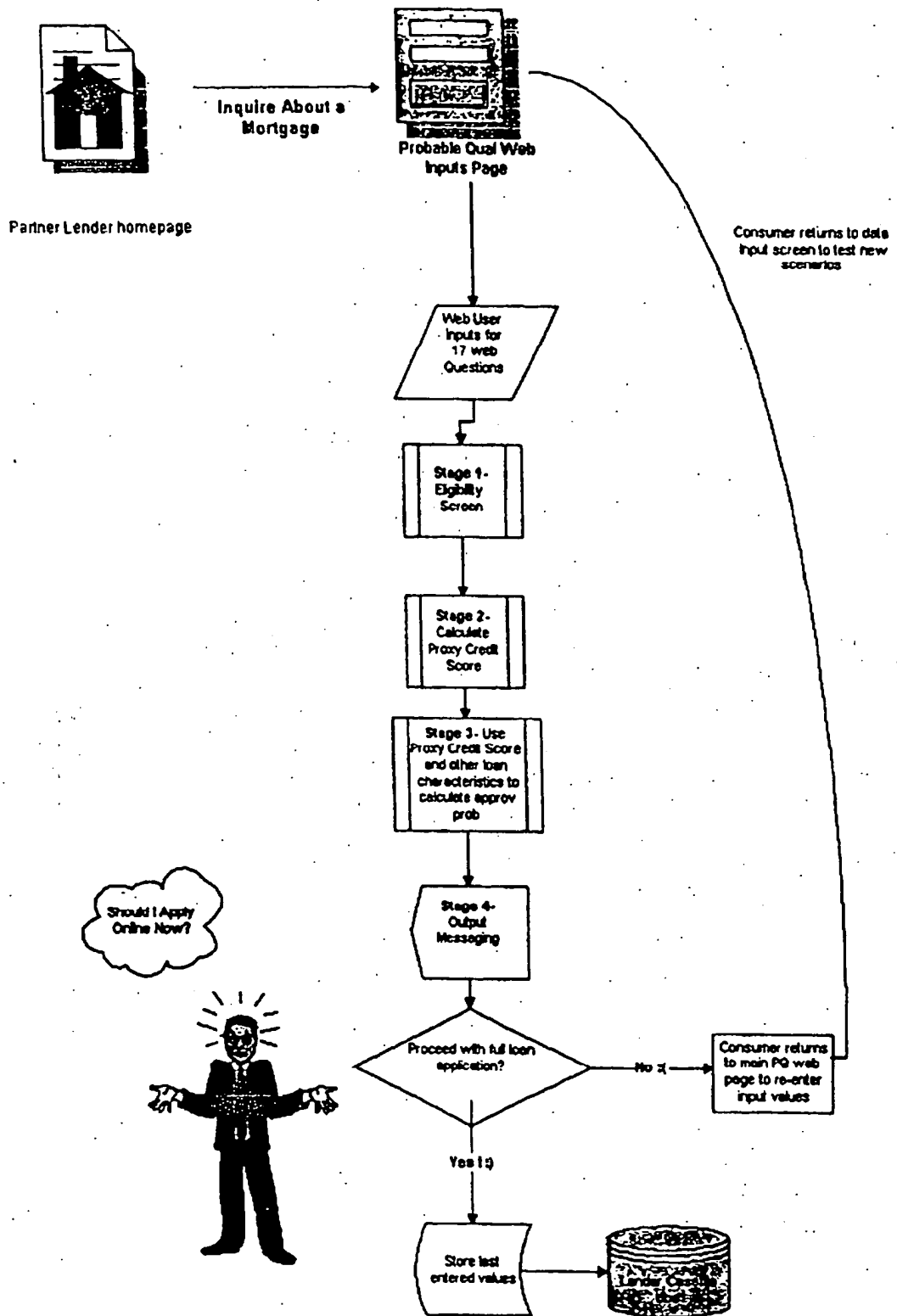
The following table presents the Probable Qual questions, formats, and allowable values.

Table 1: Probable Qualification Field Descriptions , Questions, Formats, Data Controls, & Allowable Values

Data Item	Field Description	Web-based Question	Data Format	Comments
1	Loan Purpose	What is the purpose of the loan?	1-Purchase 2-Refinance	
2a	Current Mortgage Balance	What is your current mortgage balance?	Dollar amount	Data item required when Loan Purpose-Refinance
3a	Property Value	What is the purchase price of the property?	Dollar amount	0 < Prop. Value < 1,000,000 Data item format when Loan Purpose-Purchase
3b	Property Value	What is the current value of the property?	Dollar amount	0 < Prop. Value < 1,000,000 Data item format when Loan Purpose-Refinance
4a	Down Payment ²	What is the down payment amount?	Dollar amount	0 < Down Pay < 1,000,000 Data item format when Loan Purpose-Purchase
4b	Loan Amount ²	What is the loan amount?	Dollar amount	0 < Loan Amount < 1,000,000 Data item format when Loan Purpose-Refinance
5	Property Type	What is the type of property?	1-Single-Family House 2-2 units	

Data Item	Field Description	Web-based Question	Data Format	Comments
			3-3 units 4-4 units 5-Condo	
6	Property Usage	How do you plan on using the property?	1-Primary residence 2-Second home 3-Rental	
7	Loan Type	What type of loan do you want?	1-30 Year Fixed rate 2-15 Year Fixed rate 3-Adjustable Rate Mortgage 4-Balloon	
8	Number of Borrowers ¹	How many borrowers will be on the loan application?	1-one 2-Two or more	
9	Self Employed	Are you self-employed?	1-Yes 0-No	
10	Liquid Assets	How much liquid assets do you and your co-borrower have?	Dollar amount	
11	Annual Income of all Borrowers Combined ⁴	What is you and your co-borrower's total annual income? (Including salaries, child support, bonuses, commissions, gift money.)	Dollar amount	

Data Item	Field Description	Web-based Question	Data Format	Comments
12	Monthly Debt Payments ⁵	What are you and your co-borrower's total monthly debt payments?	Dollar amount	
13	Bankruptcies, foreclosures, tax liens or garnishments ⁵	During the last 10 years, have you or your co-borrower incurred any bankruptcies, foreclosures, tax liens, or garnishments?	1=Yes 0=No	
14	First Credit Account	How long ago was your first credit account established (even if it's no longer open)?	1-Less than 1 year ago 2-Between 1 and 2 years ago 3-Between 2 and 5 years ago 4-Between 5 and 10 years ago 5-More than 10 years ago	
15	Credit Accounts	How many new credit accounts have you opened during the last 2 years?	1-Fewer than 5 2-5 or more	
16	Late on Credit	When was the last time you were more than a month late on a credit account payment?	1 - Never delinquent 2 - less than 1 year ago 3 -Between 1 and 3 years ago 4 -Between 3 and 7 years ago 5 -More than 7 years ago	
17	Number of Times late on credit	How many times during the last 7 years have you been more than a month late on a credit account payment?	0=0 1=1 2=2 3=3 4=4 5=5 or more	
18	Credit Utilization ⁶	What percentage of your total credit account limits are you currently using?	1=0-5 2=5-10 3=10-20 4=20-40 5=40-80 6=greater than 80	



4.1 STEP 1. THE ELIGIBILITY SCREEN

TBD. The eligibility screen allows the "Probable Qual" user to receive feedback regarding the eligibility of the loan they are examining prior to the completion of the data input. This is accomplished by using the answers to questions 1-7 to compare product, purpose, occupancy, number of units and LTV (derived from responses to several questions) input by the user to Fannie Mae's standard eligibility requirements. If the user inputs a combination of factors that is typically ineligible they are notified immediately of the ineligibility. This allows the user to change the response to a previous question and continue with the remaining "Probable Qual" input.

4.2 STEP 2. DETERMINING THE "PROXY" CREDIT SCORE .

Through a series of credit-related questions, a proxy credit score is calculated separately for the following two groups: a) those without a delinquency in the last 7 years; b) those with delinquencies, or those whose last delinquency was over 7 years ago . Proxy scores begin with a minimum base depending on the above groups and range from a minimum proxy score of 525 for those with delinquencies to 753 . For those without delinquencies, the proxy score ranges from 578 to 781. The threshold question to determine whether a borrower has had any delinquencies is based on the consumer's response to Question # 17 in Table 1 in Section 3. If a consumer gives a non-zero response to this question, then they are considered to have a history of late payments on credit .

Table 3a:

**For Use in Constructing a Proxy Credit
Score for Web Users without Credit
Delinquencies**

For applicants without
delinquencies:

Characteristic Attribute		Proxy Credit Score Points	Maximum Score	Minimum Score
Base Score / Intercept		578	578	578
Utilization (Percentage of revolving Credit that is utilized)	80 < utilization %	0	75	0
	40 < utilization % <= 80	19		
	20 < utilization % <= 40	38		
	10 < utilization % <= 20	54		
	Utilization % <= 10	75		
How many accounts have Been established in last 2 years	Number accts. => 5	0	23	0
	Number accts. < 5	23		
Age of credit history	Years < 2	0	52	0
	2 <= years < 5	18		
	5 <= years < 10	34		
	10 <= years	52		
Public Record (Bankruptcies, foreclosures, tax liens, garnishments)	Yes	0	53	0
	No	53		
Proxy Score = sum of points			781	578

Table 3b:
For Use in Constructing Proxy Credit
Score for Web Users with Credit
Delinquencies

For applicants with
delinquencies:

Characteristic	Attribute	Proxy Credit Score Points	Maximum Score	Minimum Score
Base Score / Intercept		525	525	525
Utilization (Percentage of revolving Credit that is utilized) and Recency of Delinquency	80 < utilization %			
	delq. < 1 yr	0		
	1 yr <= delq. < 3 yrs	39		
	3 yrs <= delq. < 7 yrs	54		
	40 < utilization % <= 80			
	delq. < 1 yr	19		
	1 yr <= delq. < 3 yrs	56		
	3 yrs <= delq. < 7 yrs	68		
	20 < utilization % <= 40			
	delq. < 1 yr	42		
	1 yr <= delq. < 3 yrs	79		
	3 yrs <= delq. < 7 yrs	90		
	10 < utilization % <= 20			
	delq. < 1 yr	59		
	1 yr <= delq. < 3 yrs	97		
	3 yrs <= delq. < 7 yrs	108		
	Utilization % <= 10			
	delq. < 1 yr	78		
	1 yr <= delq. < 3 yrs	115		
	3 yrs <= delq. < 7 yrs	127	127	
How many accounts have been established in last 2 years	Number accts. >= 5	0		
	Number accts. < 5	16	16	
Age of credit history	Years < 2	0		
	2 <= years < 5	26		
	5 <= years < 10	43		
	10 <= years	57	57	
Public Record (Bankruptcies, foreclosures, tax liens, garnishments)	Yes	0		
	No	28	28	
Proxy Score = sum of points			753	525

4.3. STEP 3. DETERMINING THE COEFFICIENT WEIGHTS FOR THE NON-CREDIT FACTORS AND CALCULATING THE OVERALL APPROVAL PROBABILITY

Once a proxy credit score is determined as described in the previous section, the next step is to assign the newly calculated proxy credit score the appropriate weight according to the proxy score range given in the Table 3 "Probable Qualification Model Layout", which is given below. In addition to weighting the proxy credit score, which represents the combined weighted response to the group of credit history questions from the web-page, the responses to the other non-credit questions must also be assigned weights according to the categorized responses for each characteristic from Table 3.

4.3.12 LTV

4.3.1.3 TOTAL EXPENSE RATIO

4.3.1.5 NUMBER OF UNITS

**Table 4 - Probable Qualification Model Layout: To be
used in the calculation of An Overall Approval Probability**

Once all of the individual characteristics have been assigned weighting coefficients, they are then summed and converted to an overall probability via the following formula :

$$\text{PROBABILITY} = \text{EXP}(\text{SUM}) / (1 + \text{EXP}(\text{SUM}))$$

4.4. STEP 4. MESSAGING BACK TO CONSUMER: QUALITATIVE AND QUANTITATIVE OUTPUT

Output displayed back to the consumer will be both quantitative and qualitative in nature . The quantitative aspect of the output is to give the consumer a probability or a numerical estimate of the likelihood that their loan will be approved given their current input values . For the very small subset of borrowers found not likely to be approved, the output from the Probable Qualification tool will provide helpful suggestions for improving their

EXHIBIT C

The Pricing Engine will be responsible for pricing each borrower/product combination to present to the borrower via the Web or to a counselor in case of 1-800. The Pricing Engine will also be responsible for calculating a 1-day cash price for the Lender to sell the loans to Fannie Mae.

The Pricing Engine will perform the following functions:

- 1) Calculate "Enticement Rates" for each ~~New Entrant~~ Business Source.
- 2) Calculate a rate for a specific borrower/product combination based on an E-Commerce Conforming Credit Model approval decision.
- 3) Calculate rates looking back up to 180 days.
- 4) Calculate a sale price for each rate locked loan in the pipeline.
- 5) Perform a sanity check on rates prior to posting.

3 Pricing Components

The Fannie Mae Pricing Engine will calculate a final retail gross note rate that is to be presented to the borrower. The components of a gross note rate are as follows :

- Portfolio Required Yield, and
- Customer Price Component.

The Customer Component consists of:

- Risk Based Guaranty Fee
- Servicing Fee
- Fannie Mae Technology Price Adjustment
- ~~New Entrant~~ Business Source Fee
- Title Risk Price Adjustment (if required)
- Collateral Risk Price Adjustment (if required).

Portfolio Management will provide the Pricing Engine with a par required yield and a Yield/Point Trade-off Schedule for each in-scope product.

fee are as follows :

The criteria for establishing the risk based guaranty

- > LTV
- > Amortization Type
- > Amortization Term
- > Loan Purpose
- > Property Type

4 Presentation of Prices

A price will be unique to a borrower/product combination. In response to a pricing request, the Pricing Engine will provide the Lender the following information :

1. The borrower for which the price quote has been generated
2. The product for which the price applies (eg.: 30-year Fixed, 5/1 ARM). The loan product includes the Amortization Type, Amortization Term, Balloon Indicator, and if applicable, the ARM Plan Number.
3. The par portfolio yield from which the prices are based
4. The customer price component (risk based guaranty fee, servicing fee, Fannie Mae technology price adjustment and if applicable, the title risk and collateral risk price adjustments).
5. The Low Down Payment Price Adjustment (if applicable).
6. Maximum Note Rate
7. Maximum Points to be Paid
8. Maximum Loan Amount
9. A schedule of Yield/Point Trade-offs for the priced product.

Both the par portfolio yield and the customer price component will be provided in actuals. It is the lender's responsibility to round the Gross Note Rate(s) presented to the nearest 1/8th.

The following is an example:

New-Entrant Business Source ID
Borrower: John Doe
Product: 30-year Fixed Rate
Par Portfolio Yield: 6.7
Customer Price Component: 0.82
Low Down Payment Price Adjustment (if applicable)

Maximum Note Rate
Maximum Points to be Paid
Maximum Loan Amount
Maximum LTV (for Closing Costs only)

ACTUAL YIELD	POINTS
0.362	1.500
0.248	1.000
0.119	0.500
0.000	0.000
-0.120	-0.500
-0.246	-1.000
-0.370	-1.500
-0.503	-2.000
-0.628	-2.500
-0.747	-3.000
-0.870	-3.500

The Yield/Point Trade-off Schedule will range from a premium of 1.5 points to a discount of 3.5 points. Yields will be provided in actuals. Point trade-offs will be rounded to the nearest 1/8th increment

Each New Entrant Business Source Enticement Rate Assumption Profile will contain the following data elements :

- New Entrant Business Source Enticement Profile Identifier
 - Amortization type
 - Amortization term
 - Loan amount
 - LTV
 - FICO
 - Number of months cash reserve
 - Purpose of loan
 - Property type
 - Back-end ratio
 - Self-employed (Y/N)
 - Customer Price Component
 - Low Down Payment Price Adjustment
 - Date/time stamp when this profile began to be used .
 - Date/time stamp when this profile ceased to be used .
-

9 Enticement Rates

Enticement Rates or "teaser rates" are generic rates that are displayed to the borrower on the web site. They are *not* borrower specific, and are intended only to be representative.

9.1 Creating Enticement Rates

Upon request, for each New-EntrantBusiness Source and for each in-scope product, the Pricing Engine will generate a set of Enticement Rates. The Enticement Rates will be based on the current Portfolio Required Yield and will use the New-EntrantBusiness Source Enticement Rate Assumption Profiles to calculate the Customer Price Component.

The Pricing Engine may provide the Lender with up to three separate enticement rates for each New-EntrantBusiness Source. The rates will be based on a low-risk, an average risk, and a high-risk profile. Fannie Mae will be providing these rates to the Lender using the "Push EnticementPull Enticement Rates" transaction.

9.2 Presenting Enticement Rates

The Lender will be responsible for displaying the Enticement Rates. The Pricing Engine will provide the Lender the following information:

- > New-EntrantBusiness Source ID
- > New-EntrantBusiness Source Enticement Profile Identifier
- > Product for which the Enticement Rates apply (Loan product includes the Amortization Type, Amortization Term, Balloon Indicator and if applicable, the ARM Plan Number)
- > Par Portfolio Yield
- > Customer Price Component based on the New-EntrantBusiness Source Enticement Rate Assumption Profile
- > Yield/Point Trade-off Schedule
- > Date/time stamp when generated
- > Low Down Payment Price Adjustment (if applicable)

12 Price Approved Products for Borrower

12.3 Obtain the Customer Price Component

For each product the borrower has been approved for, the Pricing Engine will :

- > obtain Risk Based Guaranty Fee
- > obtain the Lender Servicing fee
- > obtain Fannie Mae technology price adjustment
 - convert Fannie Mae technology price adjustment to yield
- > obtain the title risk price adjustment
- > obtain the collateral risk price adjustment (if the E-Commerce Conforming Credit Model has not required an appraisal)
- > add all components above to obtain the Customer Price Component .

12.4 Tailor Gross Note Rate/Points Schedule

The Pricing Engine will be responsible for generating and tailoring the Gross Note Rate/Points Schedule .
